# GUARANTEE

**Terms and Conditions for UK (outside UK contact your local distributor)**

We, Applied Energy Products Limited, guarantee this product **for domestic use only,** for the period of 36 months* from the date of purchase.

Within the guarantee period we will resolve, **free of charge,** any manufacturing defects in the product resulting from faulty workmanship or material on condition that:-

a) The appliance has been correctly installed in accordance with our instructions and is being used on the supply circuit or voltage printed on the rating plate.

b) The appliance has been used in accordance with these instructions and has not been tampered with or otherwise subject to misuse, neglect or accident.

c) The appliance has not been taken apart, modified or repaired except by a person authorised by us.

d) Evidence of the date of purchase in the form of an invoice or receipt will be required in order to qualify for an in-guarantee repair.

e) The guarantee period for the products used in commercial applications will be limited to 12 months.

f) For the service work to be undertaken free of charge, the work must be only undertaken by Applied Energy Products Limited, or our approved agents.

g) Service under guarantee has no effect on the expiry date. The guarantee on any exchanged parts or product ends when the original guarantee period ends.

EXCLUSIONS

This guarantee **DOES NOT** cover damage or defects arising from poor or incorrect installation, improper use or lack of maintenance, including build-up of limescale. It is the responsibilty of the installer to check that the installation parameters meet the requirements of the product, and any relevant regulations.

If we are called out to a fault, which is subsequently identified as being an installation fault, we will make a charge. It is important that the routine checks are completed before calling us out, as many issues can be simply diagnosed and resolved.

We make no guarantees as to response times for repairs. We will endeavour to achieve the most timely response possible but while we indicate an average response time, this should not be taken as a guarantee.

The guarantee applies to a repair or replacement (at our discretion) of the product subject to the conditions above, and **DOES NOT** cover compensation for the loss of the product or consequential loss of any kind.

The guarantee does not apply to the repair or replacement of pressure relief devices, sprayheads, hoses, accessories, isolating switches, electrical cable, fuses and/or circuit breakers.

This guarantee does not affect your statutory rights.

* Months 13 to 36 of your free guarantee are conditional on the registration of your product at the time of purchase. Product registration helps us to identify when products are installed, and in what location in order to facilitate a more efficient response to your requests.

**Full details of terms and conditions are available on request from: -**

REDRING

**APPLIED ENERGY PRODUCTS LTD.**
**MORLEY WAY, PETERBOROUGH. PE2 9JJ.**
**Tel +44 (0) 844 372 7761 / Fax: +44 (0) 844 372 7762**
**Website: www.redring.co.uk**

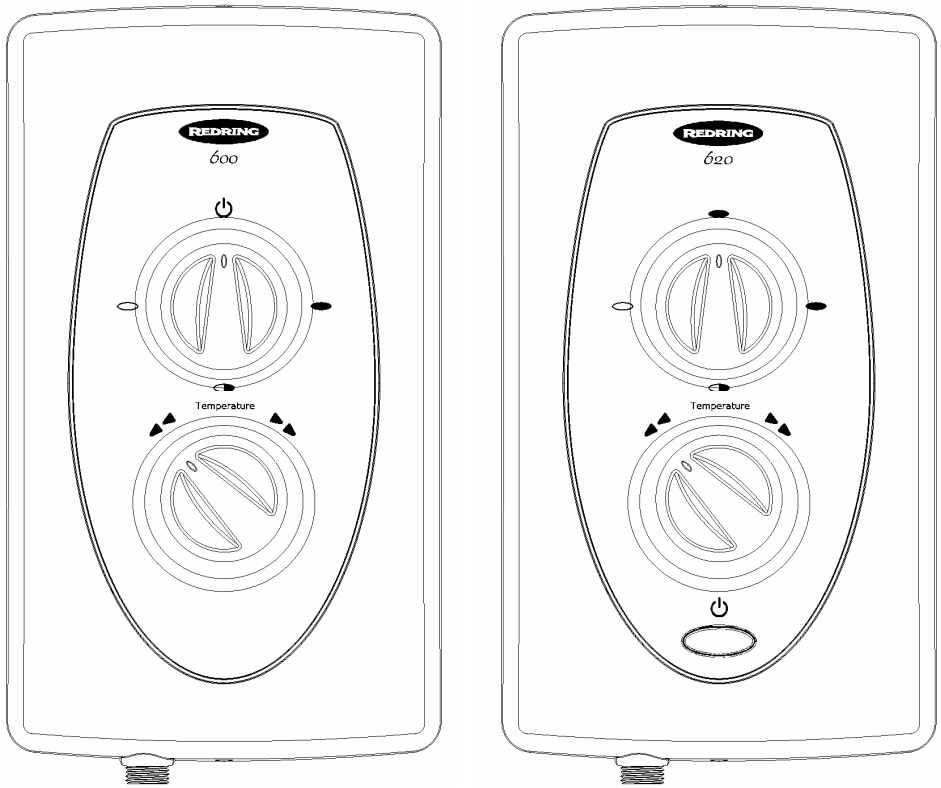
**(A4 Leaflet: 555.2067.01d)**



REDRING

# 600 & 620

## SHOWER HANDBOOK




**IMPORTANT:**
**Please retain this booklet for future reference**

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## How to use your shower

1. Ensure the electricity and water are turned on to the unit
2. Function of controls: -
   **KNOB "A"** – Power selector. ***(On/off 600 only)***

| Model 600 | | Model 620 | |
|---|---|---|---|
| Standby | - ⏻ | Full Power | - ● |
| Full Power | - ● | Med Power | - ◑ |
| Med Power | - ◑ | Low Power | - ○ |
| Low Power | - ○ | Cold (grey) | - ● |

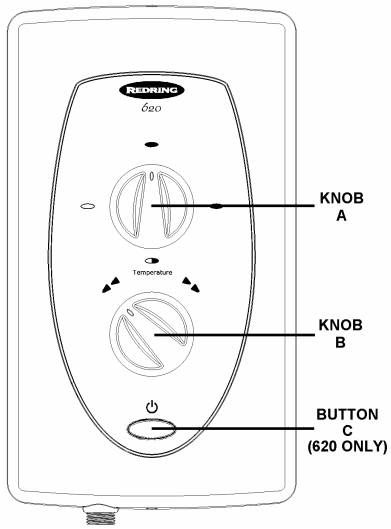



**Diagram 1**

**KNOB "B"**– Adjusts the flow / temperature of the water

**BUTTON "C"** ***(620 ONLY)*** – Starts and 'Shuts down' the shower and cools the water automatically for the next shower.

3. **Turning the unit on**
   **Model 600 –** Rotate knob "A" clockwise a ¼ turn (one click) this will select full power, the normal setting, further turns change the power setting (see above).
   **Model 620 –** Press button "C". (Rotating knob "A" selects the power level, full power being the normal setting - see above).
4. You will now need to adjust the temperature of the water. Rotate knob "B".
   If the temperature is too low rotate knob "B" anti clockwise and **allow 20 seconds** for the temperature to settle. Repeat this procedure until the temperature is to your liking.
5. If the temperature is too high then turn knob "B" clockwise **allowing 20 seconds** between adjustments. The final adjustment can be anywhere on the scale.
   See diagram 3 for relationship of flow to temperature.
6. Clockwise makes the temperature cooler, anti-clockwise makes the temperature warmer.
7. Once a temperature of your liking has been achieved knob "B" will rarely need adjusting.
   e.g. Adjust for variations of incoming mains water temperature between summer and winter.
8. The options of **Medium** or **Low,** reduces the power used giving a cooler shower or the option of reduced flow. These options are mainly for summer usage and knob "B" will have to be re-adjusted. The **cold** option ***(620 only)*** supplies water with no heat.
9. When you have **finished** showering.
   **Model 600** - Rotate knob "A" to the 12 o'clock position ( ⏻ )
   The electricity is switched off and the water will cease to flow immediately.
   **Model 620** – Press button "C".
   The electricity to the elements is then switched off; water will continue to flow for approximately 5 seconds before switching off.
   This reduces the temperature of the water in the unit.

Switch the electricity off at the ceiling switch or local isolator.



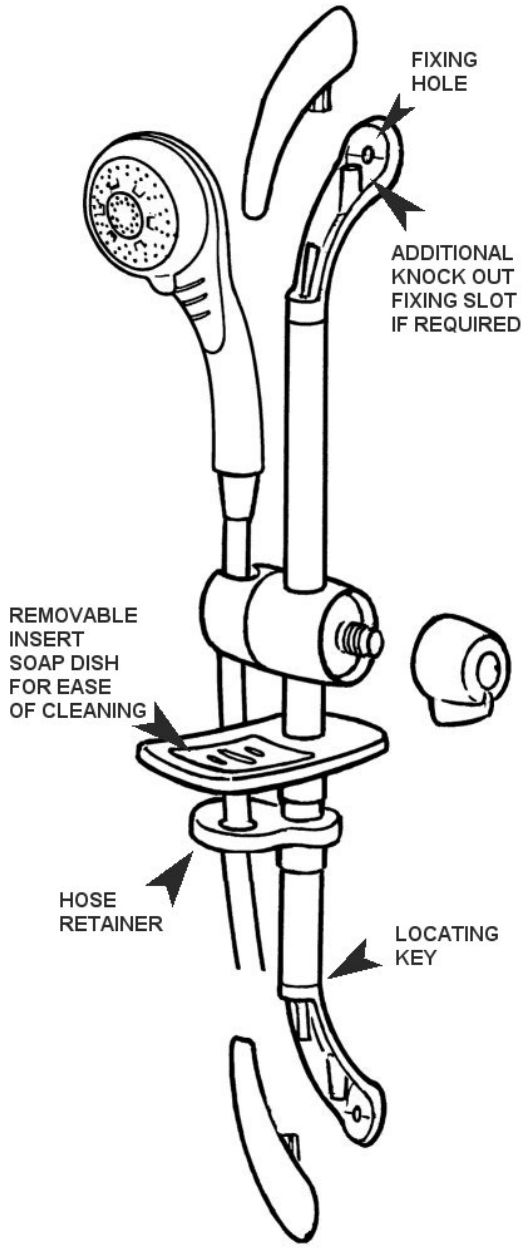

FIXING HOLE
ADDITIONAL KNOCK OUT FIXING SLOT IF REQUIRED
REMOVABLE INSERT SOAP DISH FOR EASE OF CLEANING
HOSE RETAINER
LOCATING KEY

**Diagram 12**

## Redring After Sales Service

We offer a technical advisory service on the telephone to contractors and other customers with problems in the field**.**

**RING 0844 372 7766**

Some Spare parts (see below) can be supplied against any debit or credit cards.

Remember to quote the exact type of shower, as written on the front of the shower and on this leaflet.
The model and serial number are located on the bottom face of the shower.
Make a note of these numbers here, and be sure to quote them if you call for advice.

**Model Number: 53- . . . . . .**

**Serial Number: . . . . . .**

| Additional Accessories | Catalogue Number |
|---|---|
| White 2 metre shower hose | 83-593529 |
| WRAS water isolating valve | 93-792452 |
| Shower de-scaling powder | 95-711015 |
| Curtain and rail pack | 83-792812 |
| Curtain and rail pack with Bath mat | 83-792811 |

| Spares | Catalogue Number |
|---|---|
| Front cover complete (Redring 600) | 93-597808 |
| Front cover complete (Redring 620) | 93-597809 |
| Removable Side section | 93-591819 |
| Thermal cutout | 93-590306 |
| Outlet elbow & PRV | 93-593592 |
| Solenoid | 93-591805 |
| Inlet elbow | 93-591804 |
| Gear wheel drive | 93-593591 |
| Miniature microswitch (600 only) | 93-597811 |
| Relay (620 only) | 93-597812 |
| Timer PCB (620 only) | 93-597813 |
| On/off switch (620 only) | 93-590713 |
| Handset (600 only) | 93-590736 |
| Handset (620 only) | 93-597862 |
| Height Adjuster | 93-593573 |
| 1.25m long White Shower Hose | 93-593538 |

**** Please Note:- The fitting of spare parts must be supervised by a suitably qualified person***

**Spares / accessories can be supplied against any Debit or Credit cards from Redring Sales Hotline 0844 372 7750**

***THIS APPLIANCE IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN AND THE INFIRM) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.***

***CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.***



10. Your shower is designed to stabilise temperature changes caused by water pressure fluctuations.
    These can result from toilets being flushed or taps being turned on or off.
    When this happens your showering temperature will be held within a controlled band, provided that the minimum pressure required by the shower is maintained.
11. Your shower requires a minimum operating pressure of 100 kPa (1.0 bar, 14.5 p.s.i.).
    At pressures above 100 kPa (1.0 bar, 14.5 p.s.i.) it will minimise temperature fluctuations as detailed in note 10.
    If the water pressure falls below 100 kPa (1.0 bar, 14.5 p.s.i.), it is likely that the pressure switch will turn off the power to the heating elements, resulting in a cold shower.
12. During normal operation if the shower senses an overheated water temperature then the thermal cutout will switch off the heating elements.
    Water will continue to flow and as the water temperature falls the heating elements will be turned back on.
    If the unit continues to do this then increase the flow rate by turning knob “B” clockwise and check that the handset does not require de-scaling.
    If it still continues, then rotate knob “A” to the **MEDIUM** power setting, six o’clock position (Knob B will need adjusting).
13. Note that knob **“B” IS NOT A TAP** and does not turn the water off.

**WARNING! DO NOT SWITCH THE SHOWER ON IF YOU SUSPECT IT OF BEING FROZEN. WAIT UNTIL YOU ARE SURE IT HAS THAWED OUT.**

## How to maintain your shower

It is recommended that the shower unit, riser rail, hose etc. can be cleaned using a soft cloth and that the use of an abrasive or solvent cleaning fluid be avoided.

We recommend that, before cleaning, the isolating switch be turned off, thus avoiding accidentally switching on the shower.

**YOU MUST REGULARLY INSPECT THE SHOWER HOSE FOR WEAR AND DAMAGE. REPLACE IF NECESSARY, OR EVERY TWO YEARS, WITH AN APPROVED PART.**

**THIS SHOWER IS DESIGNED AND APPROVED TO EN-60335 WITH THE HANDSET PROVIDED.**
**UNDER NO CIRCUMSTANCES MUST ANY HANDSET THAT IS NOT APPROVED BY THE MANUFACTURER BE USED WITH THIS PRODUCT.**

**IN ORDER TO MAINTAIN THE PERFORMANCE OF YOUR SHOWER YOU MUST CLEAN THE SHOWERHEAD REGULARLY**.

All water contains particles of lime-scale, which build up in the showerhead and unit reducing the performance.
It is therefore important to clean the showerhead by simply rubbing the rubber nozzles regularly.

In some **winter** conditions, when the incoming mains water is particularly cold it may be necessary to select the **inner or outer** spray pattern only. This will ensure correct operation of the shower with a slightly lower water flow rate.

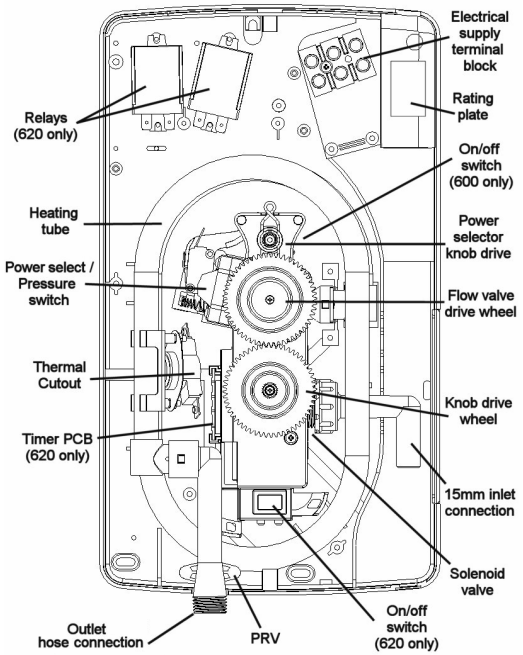
**NOTE:** After use it is normal for some water to drip from the showerhead for a few moments. This inhibits lime-scale build-up over prolonged use.

## How your shower works

Your shower is designed for convenience, economy and safety of use

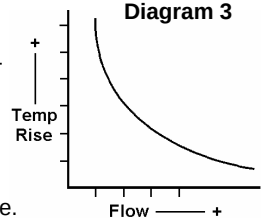
1. Water is heated instantaneously as it flows over the elements in the copper heating tube.

**Diagram 2**




2. The required water temperature is achieved by adjusting the rate of water flow.
   Diagram 3 shows the principle involved in relating temperature rise to flow rate.
   The higher the water flow the lower the temperature rise, and vice versa.
   The temperature of the water supplied from the mains can vary considerably throughout the year from 5 to 20°C.
   This means that in Winter, the flow rate will be less than in the Summer to achieve the same outlet temperature.
   In summer the "**MED** (medium)" or "**LOW**" power setting may give adequate hot water.

**Diagram 3**

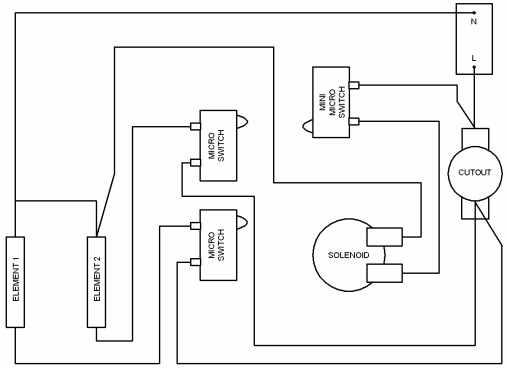



3. The heaters are only switched on when sufficient water is flowing.
   This is done automatically with a switch, which works on water pressure.
4. The water is turned on and off by the solenoid valve built into the shower.
   This is switched on by rotating Knob "A" *or pressing button "C" on model* ***620 only.***
5. The flow of water is automatically held at the level set by the user even though the supply pressure may vary. (See "How to use your shower" note 10).
6. If the water supply falls below a set limit, the pressure switch will switch off the power to the heating elements in the copper heating tube.
7. As a further safeguard, a thermal cutout switches the power off if the water temperature climbs above a set limit. The cutout gives an audible click when it switches off, but will reset itself if water is run through the shower for 10 to 20 seconds.
8. The pressure relief device is to safeguard against abnormal pressure conditions, and provides a level of appliance protection should an excessive build up of pressure occur within the unit.

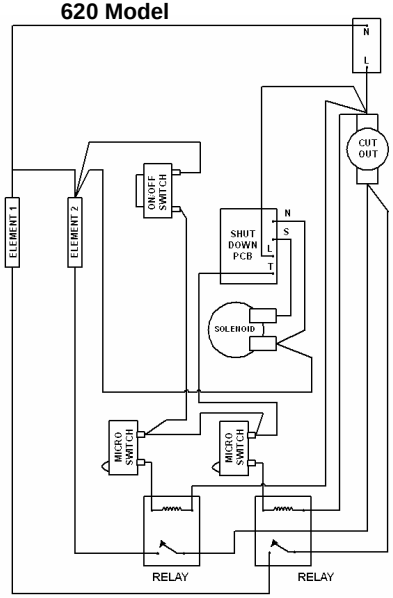


**600 Model**

**Diagram 10**

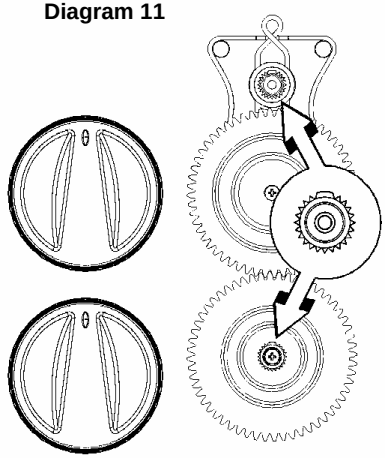



**620 Model**




7. Operate the shower first without the handset to flush out any particles, fit handset and then operate the shower as explained previously and check:
   a) That the water gets to a satisfactory temperature.
   b) Power selection does give a change in water temperature.
   c) Check again for leaks.
   d) That the holes in the spray plate are not blocked.
   e) Water flow can be adjusted by knob B.
8. DEMONSTRATE OPERATION TO USER
9. LEAVE THESE INSTRUCTIONS WITH THE USER FOR FUTURE REFERENCE.

**Diagram 11**



**Rotate both knobs so pointers are as shown**

**Rotate lower gear and power selector shaft as shown**

5. It is permissible to use a WRAS (Water Regulations Advisory Scheme) approved sealant sparingly whilst avoiding excess finding its way into shower operating parts.

6. With the isolating valve connected, **flush the pipe-work through to remove any particles etc** before making the final connection to the shower. Blockage in the waterways (particularly the handset and solenoid valve) will prevent the heater working properly.

7. The shower is designed to have an open outlet and should only be used with manufacturer recommended fittings. Do not connect the handset until after the shower removable side section and front cover are fitted.

**WARNING! DO NOT FIT A TAP ON THE SHOWER OUTLET.**
**TAKE CARE TO AVOID RESTRICTING THE OUTLET AND FLOW FROM THE HANDSET OR THE PRESSURE RELIEF DEVICE.**

**c) Electrical Connections**

The electrical installation must be in accordance with the current BS.7671 (I.E.E. regulations) and "Part P" of the Building Regulations and/or local regulations.

1. The shower is designed for a single-phase A.C. electrical supply.
Please check the rating plate on the unit to see what details apply.
*AS A GUIDE ONLY (* Only applies if external earth impedance is less than 0.35 Ohms)*

| Rating | Cable Sizes | Fuse / MCB | Cable Length |
|---|---|---|---|
| **7.5 / 6.9kW 240 / 230V** | 4.0mm² 6.0mm² | 32A Type B MCB | 21m Max. 35m Max. |
| | 6.0mm² 10.0mm² | 40A Type B MCB | 27m Max. 45m Max. |
| **8.5 / 7.8kW 240 / 230V** | 6.0mm² 10.0mm² | 40A Type B MCB | 27m Max. 45m Max. |
| | 6.0mm² 10.0mm² | 45A BS.1361 fuse | 12m Max.* 21m Max.* |
| **9.5 / 8.7kW 240 / 230V** | 6.0mm² 10.0mm² | 40A Type B MCB | 27m Max. 45m Max. |
| | 6.0mm² 10.0mm² | 45A BS.1361 fuse | 12m Max.* 21m Max.* |

Remember to uprate the cable if it runs in thermal insulation in a loft, or for a longer distance.

2. A means for disconnection in all poles **must be** incorporated in the fixed wiring in accordance with the wiring rules. We recommend ceiling switches.

**3. WARNING! This appliance must be earthed.**

4. Cut back cable as in diagram 9.
Connect cable to terminal block making sure that **ALL** the retaining screws are **VERY** tight and that no cable insulation is trapped in the block.

**WARNING!**
**FAILURE TO COMPLY WITH THESE INSTRUCTIONS COULD RESULT IN A FAILURE OF THE TERMINAL BLOCK AND CABLING**.

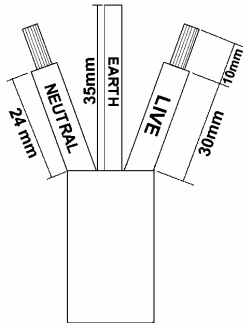



**Diagram 9**

5. Fit the front cover into position making sure the knob is aligned correctly with the flow valve (see diagram 11).

6. Fit the front cover into position making sure the knob is aligned correctly with the flow valve (see diagram 11).

**WARNING! TAKE CARE WHEN REPLACING THE FRONT COVER TO AVOID DAMAGING ANY COMPONENTS.**



## What to do if things go wrong

**SELF HELP**

If the shower is not working satisfactorily, make the following checks before calling out the installer. Any of these adjustments could restore the performance

| | |
|---|---|
| **a) Water too HOT** | Increase water flow by adjusting the temperature control clockwise.<br>Clean spray plate holes.<br>Select outer or combination spray patterns ***(620 only).***<br>Switch power to **MEDIUM** setting.<br>Increase pressure of water supply e.g. fully open service valve or stop cock.<br>Check hose is not kinked restricting the water flow. |
| **b) Water too COLD** | Decrease water flow by adjusting the temperature control anti-clockwise.<br>Select inner or outer spray patterns only ***(620 only).***<br>Switch power to **FULL** setting. |
| **c) Spray pattern poor** | Clean spray plate and flush heater.<br>Select inner / outer spray pattern ***(620 only).*** |
| **d) Water goes cold while using shower** | Check water pressure has not fallen so far as to let pressure switch cut out, e.g. another tap drawing water off.<br>Raise position of handset. |
| **e) Broken parts** | Please contact our spares department on 0844 372 7750.<br>Fitting instructions are provided with spares. |

**PROFESSIONAL SERVICE**

If the previous checks fail to restore the performance, you should seek professional help.

**The person who installed the shower is probably the best one to repair it and is certainly the person to contact if you have a problem in the guarantee period.**

The following additional checklist is provided for the benefit of the qualified service person.

**WARNING! SWITCH OFF THE ELECTRICITY AT THE ISOLATING SWITCH BEFORE REMOVING THE COVER TO MAKE CHECKS.**

| | |
|---|---|
| **a) Water too HOT** | Water flow restricted by blockage in filter of solenoid valve.<br>Switch off water and undo plastic nut on elbow, loosen brass nut to swing elbow away from solenoid.<br>Remove filter in solenoid with long nosed pliers and flush clean. |
| **b) Water too COLD** | Check circuit through thermal cut-out<br>Check circuit through microswitch on the pressure switch<br>Check each element circuit.<br>Check tightness of electrical connections. |
| **c) Water leaks from burst pressure relief valve** | Check for cause of high pressure and remove it.<br>i.e. Blockage on outlet or blocked spray plate.<br>Replace the pressure relief disc (not covered by guarantee). |
| **d) Water does not flow when Knob "A" is rotated *(when button "C" is pressed - 620 only)*** | Check the circuit through the solenoid coil.<br>Check circuit through mini microswitch *(push switch – **620 only**)*<br>Possible timer PCB fault ***(620 only)***. If defective, then replace.<br>Power supply not reaching shower. |

## Installation instructions

**WARNING! ALL WIRING AND INSTALLATION MUST BE SUPERVISED BY A SUITABLY QUALIFIED PERSON**

**WARNING! DO NOT INSTALL THIS SHOWER IN A ROOM WHERE IT MAY BE SUBJECT TO FREEZING**

We recommend that the installation be done in the following sequence.

a) Fixing the shower to the wall
b) Plumbing
c) Electrical connections

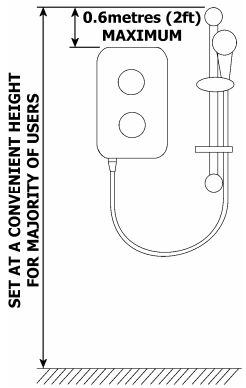



**Diagram 4**

### a) Fixing the shower to the wall

1. Position the riser rail at the height recommended in diagram 4 and mark its position.
2. Position the heater so the sides of the unit are vertical and the top is level with, **or up to 0.6 metres (2ft) maximum below the top of the riser rail**. Choose a flat piece of wall to avoid the possibility of distorting the back plate thus making the front cover a poor fit
3. Adjust the positions to get the most convenient arrangement taking the following into account.
   a) The possible need to use the handset over the sink for hair washing etc.
   **b) The heater must not be mounted in the direct spray from the showerhead.**
   c) The handset must not be able to come into contact with any used water in the bath or basin. If it can, even after the hose has been retained by the hose retainer (see diagram 12) then a vacuum breaker must be fitted.
4. Fix the riser rail with screws provided. The fixing holes at the base of the brackets will be disclosed by removing the plastic fronts. Assemble as shown in diagram 12.
5. Decide the position of the electrical cable inside the unit. If top or bottom entry is chosen (according to diagram 5), cut away the walls of the back-plate as shown in diagram 7. There is also the option to fit the cable from the rear in the channel provided.
6. Decide the cut away position of entry of the cold water pipe into the unit. Cut away the back-plate and front cover as shown in diagram 6 or 7. There is also the option to have rear entry (see later section on plumbing).
7. If you have not yet done so, remove the front cover (complete with control knob) of the unit by undoing the retaining screws at the top and bottom of the unit and lifting the cover off. The top-fixing hole is a keyhole slot, and should be marked and drilled first. Tighten top screw with head protruding about 10mm from wall and hook the back-plate over the screw head. This allows for correct and accurate alignment of your shower before marking and fixing the bottom/side position. You may not wish to tighten up all 3 other screws at this stage as the holes are elongated to allow for adjustment after other connections have taken place.

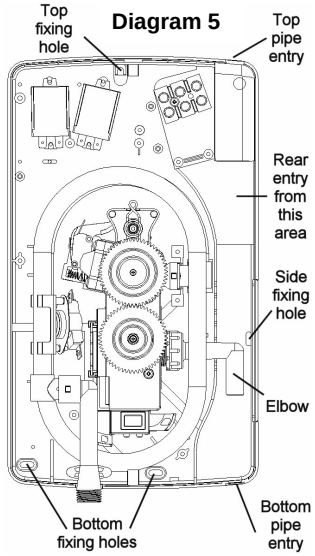



**Diagram 5**



8. Do not obstruct the pressure relief device found in the back-plate slot underneath the outlet connection (see diagram 3), especially if silicone sealant or similar materials are used around the edges of the back-plate.
9. There are a number of shields in the shower unit. These are important for the correct operation of this shower and **MUST NOT** be removed under any circumstances.

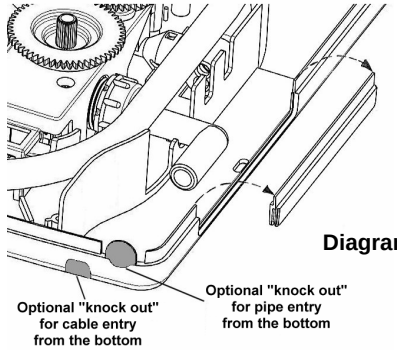



**Diagram 6**

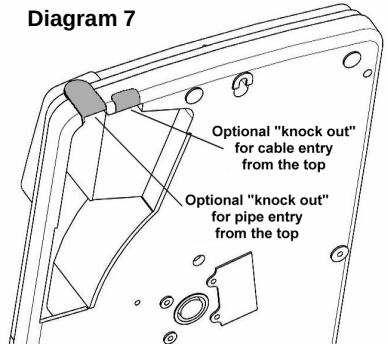



**Diagram 7**

### b) Plumbing (see diagram 8)

The heater should be connected to the mains cold water supply.
This must have a minimum running pressure of 100kPa, 1.0 bar (14.5 p.s.i) and a maximum pressure of 1000kPa, 10 bar (145 p.s.i).
Before connecting the pipe-work to the shower ensure that pipe-work is flushed out.

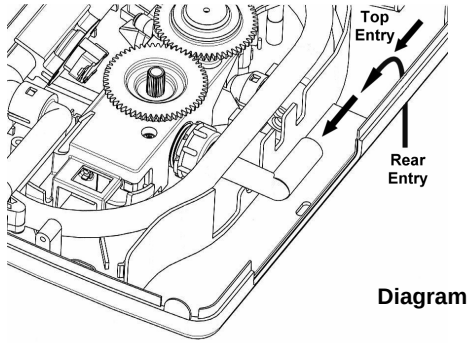
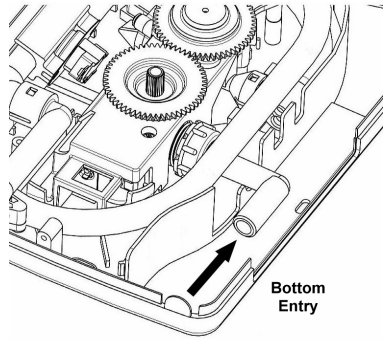



**Diagram 8**




1. It is recommended that a WRAS (Water Regulations Advisory Scheme) listed isolating valve is fitted to the incoming mains cold water before the shower unit. This will allow the unit to be serviced or exchanged without having to turn off the water at the mains stop valve.
2. The heater can be fed from a header tank provided this has a minimum head height of 10.5 metres (35ft).
3. Ø15mm copper or stainless steel pipe should be used with a standard compression fitting. In multiple shower installations correct pipe-work sizes should be calculated to maintain adequate flow to each shower.
4. a) If top entry is chosen, turn the elbow 180° into the required position and fit a standard 15mm in-line compression fitting. There is a removable side section, which will aid you with this (diagram 6).
   b) If rear entry is chosen, turn the elbow 180° and treat it as top entry except for the fitting of a 'Yorkshire' elbow in the rear channel. The removable side section will again be an aid.